

Epoxy Eco

Eco-friendly, organic mineral adhesive for the high-adhesion, high chemical resistance fixing with no vertical slip on rigid substrates, ideal for use in GreenBuilding. Safeguards the health of operators.

Epoxy Eco develops high levels of chemical and mechanical resistance, making it safe to fix floor and wall coverings on absorbent and non-absorbent substrates in industrial environments and spa in contact with aggressive substances.



GREENBUILDING RATING®

Epoxy Eco

- Category: Organic Mineral Products
- Class: Organic mineral adhesives
- Rating: Eco 2

eco2	Biobased Mineral 2-30%	Low Emission IAQ Indoor Air Quality	SLV REDUCED Solvent ≤ 5 g/kg	Low Ecological Impact	Health Care
	✓ Natural mineral content 68%				✓ Non-toxic and non-hazardous

RATING SYSTEM ACCREDITED BY CERTIFICATION BODY SGS

PRODUCT STRENGTHS

- Floors and walls, for internal and external use
- No vertical slip
- Suitable for fixing vitrified tiles, ceramic tiles and natural stone
- Good resistance to acids
- Long mixture pot life
- Easy and fast to apply



ECO NOTES

- Formulated with locally-sourced minerals meaning lower greenhouse gas emission during transportation
- Improved on-site safety guaranteed

AREAS OF USE

Use

High chemical and mechanical resistance fixing of ceramic tiles, vitrified tiles, marble and stable natural stone, on floors and walls, on absorbent and non-absorbent, rigid substrates.

Materials:

- vitrified tiles, low thickness slabs, ceramic tiles, klinker, cotto, glass and ceramic mosaic, natural stone, recomposed materials, marble.

Surfaces:

- mineral screed
- screeds produced with Biocem
- cement-based screeds
- prefabricated concrete or fresh concrete castings
- cement plasters and cement-lime mortar
- floors and walls in epoxy resin, fibreglass, glazed tiles and porcelain tiles, cement-based and resin floor tiles

Internal and external flooring and walls, in domestic, commercial and industrial applications, for street furniture, work surfaces in industrial settings or in laboratories, swimming pools, thermal water baths and fountains, also in areas subject to freezing.

Do not use

In contact with polystyrene, on plastic or resilient materials, metals and wood; on substrates that are highly deformable, not perfectly dry and subject to moisture rising.

INSTRUCTIONS FOR USE

Preparation of substrates

Substrates must be compact and consistent, free from dust, oil and grease, free from any moisture rising, with no loose and flaky debris or imperfectly anchored parts. The substrate must be stable, non-deformable, without cracks and have already completed the curing period of hygrometric shrinkage. Uneven areas must be corrected with suitable smoothing and finishing products.

Preparation

Epoxy Eco is prepared by mixing together parts A and B from the bottom upwards, using a low-rev ($\approx 400/\text{min.}$) helicoidal agitator, respecting the preset ratio of 6.4 : 1.6 in the packaging. Pour Part B into the bucket containing Part A, being careful to mix the two parts uniformly until a smooth, even coloured mixture is obtained. The user must mix a quantity of adhesive which can be consumed within 1 hour at $+23\text{ }^{\circ}\text{C}$ / 50% R.H. Packs of Epoxy Eco must be stored at a temperature of $\approx +20\text{ }^{\circ}\text{C}$ for at least 2/3 days prior to use.

Application

Epoxy Eco can be applied with a suitable toothed trowel to be chosen according to the size and type of the tile. Using the smooth part of the trowel, apply a fine layer of product, pressing down onto the substrate in order to ensure maximum adhesion. Press down each tile to allow for maximum coverage of the surface. In environments subjected to heavy traffic, in external applications and wherever high chemical resistance fixing system is required, use the double-spread technique to ensure 100% wettability of tile backs.

Cleaning

Residues of Epoxy Eco can be cleaned from tools and covered surfaces with water and alcohol while the adhesive is still fresh. Once hardened, the adhesive can only be removed by mechanical means.

SPECIAL NOTES

Epoxy Eco is suitable for rigid bonding of special formats of ceramic and vitrified tiles and thresholds in stone.

For superior chemical resistance and waterproofing of a monolithic substrate in concrete, a surface levelling coat must be applied with the smooth part of the trowel. Then, adjust the thickness with the toothed side and apply a layer of Epoxy Eco also on the back of each tile before fixing.

ABSTRACT

The fixing of vitrified tiles, ceramic tiles and marble with high chemical and mechanical resistance, on rigid substrates must be carried out using two-component, eco-friendly organic mineral adhesive with no vertical slip, compliant with EN 12004 – class R2 T, GreenBuilding Rating® Eco 2, type Epoxy Eco manufactured by Kerakoll. The surface must be clean, free from any loose, flaky parts and adequately matured. A ____ mm toothed trowel must be used for an average coverage of \approx ____ kg/m^2 . Create elastic fractionizing joints every ____ m2. Tiles must be fixed with joints of ____ mm width.

TECHNICAL DATA COMPLIANT WITH KERAKOLL QUALITY STANDARD

Appearance	Part A: grey paste / Part B: beige paste	
Specific weight	Part A $\approx 1,68\text{ kg}/\text{dm}^3$ / Part B $\approx 1,76\text{ kg}/\text{dm}^3$	
Mineralogical nature of inert material	crystalline carbonate	
Grading	$\approx 0 - 100\text{ }\mu\text{m}$	
Shelf life	≈ 12 months in the original packaging	
Warning	Protect from frost and avoid direct exposure to sunlight and sources of heat	
Pack	monopack 8 kg (6,4+1,6 kg)	
Mixing ratio	Part A : Part B = 6,4 : 1,6	
Viscosity of the mixture	$\approx 330000\text{ mPa} \cdot \text{s}$, rotor 95 RPM 10	Brookfield method
Specific weight of the mixture	$\approx 1,69\text{ kg}/\text{dm}^3$	
Pot life	$\geq 1\text{ hr}$	
Temperature range for application	from $+10\text{ }^{\circ}\text{C}$ to $+30\text{ }^{\circ}\text{C}$	
Open time	$\geq 1\text{ hr}$	EN 1346
Adjustability	$\geq 1\text{ hr}$	
Vertical slip	$\leq 0,5\text{ mm}$	EN 1308
Foot traffic	$\approx 24\text{ hrs}$	
Grouting	$\approx 12\text{ hrs}$ on walls / $\approx 24\text{ hrs}$ on floors	
Interval before normal use	$\approx 3\text{ days}$	
Coverage*	$\approx 1,69\text{ kg}/\text{m}^2$ per mm of thickness	

Values taken at $+23\text{ }^{\circ}\text{C}$, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site, i.e. temperature, ventilation and absorptency level of the surface and of the materials fixed.

(*) Can vary depending on the irregularity of the substrate and the format of the tile.

PERFORMANCE

HIGH-TECH

Shear adhesion after 7 days	$\geq 5 \text{ N/mm}^2$	EN 12003
Durability test:		
- shear adhesion after water immersion	$\geq 3,5 \text{ N/mm}^2$	EN 12003
- shear adhesion after thermal shock	$\geq 6 \text{ N/mm}^2$	EN 12003
Adhesion to concrete after 7 days	$\geq 3,5 \text{ N/mm}^2$ (concrete yield)	EN 1348
Resistance to acids	Good	
Working temperature	from -40°C to $+110^\circ\text{C}$	
Conformity	R2 T	EN 12004

Values taken at $+23^\circ\text{C}$, 50% R.H. and no ventilation. Data may vary depending on specific conditions at the building site.

WARNING

- **Product for professional use**
- abide by any standards and national regulations
- use at temperatures between $+10^\circ\text{C}$ and $+30^\circ\text{C}$
- use packs which have been stored for 2/3 days before use at $+20^\circ\text{C}$
- respect the mixing ratio of 6.4 : 1.6. For partial mixing, weigh the two parts precisely
- workability times may vary considerably, depending on environmental conditions and the temperature of the tiles
- protect against direct rain for at least 12 hrs
- do not fix on substrates subject to moisture rising or which are not completely dry
- if necessary, ask for the safety data sheet
- for any other issues, contact the Kerakoll India Helpline (Toll Free) 1800-200-6550 - info@kerakollindia.com

The Eco and Bio classifications refer to the GreenBuilding Rating® Manual 2012. This information was last updated in April 2015 (ref. GBR Data Report - 05.15); please note that additions and/or amendments may be made over time by KERAKOLL SpA; for the latest version, see www.kerakoll.com. KERAKOLL SpA shall therefore be liable for the validity, accuracy and updating of information provided only when taken directly from its institutional website. The technical data sheet given here is based on our technical and practical knowledge. As it is not possible for us to directly check the conditions in your building yards and the execution of the work, this information represents general indications that do not bind Kerakoll in any way. Therefore, it is advisable to perform a preliminary test to verify the suitability of the product for your purposes.